

REMARKS

The Examiner's action and the references and grounds for rejection relied upon therein have been carefully considered and the application has been amended accordingly. Specifically, Claim 1 has been amended to recite that the mold cavities of the first group are arranged , with respect to the axis of the carrier arm, to be exclusively point-symmetric to the mold cavities of the second group. This amendment inserts a limitation in the claims, not previously recited, which overcomes the rejections based upon obviousness-type double patenting as well as the rejections under 35 USC 102(b). In addition, a new claim 4 has been added to the application based upon the disclosure appearing in the specification at page 4, lines 4 to 7.

Claims 1 and 2 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 6,379,139 – Boucherie ('139) in view of one of Boucherie ('176) or Boucherie ('923) or Wolfgang et al, the Examiner stating that the limitations of claims 1 and 2 of Boucherie '139 teach the invention of claims 1 and 2 of the instant application except that Boucherie '139 fails to teach a rotatable carrier arm mounted for rotation about an axis with the mold inserts being attached to the carrier arm and the two groups being arranged on opposite sides of the rotatable carrier arm. It is the Examiner's position that each of the cited secondary references teaches a rotatable carrier arm mounted for rotation about an axis with mold inserts being attached to the carrier arm and the two groups arranged on opposite sides of the rotatable carrier arm.

Neither the claim limitations of Boucherie '139 nor the disclosure of any of the cited secondary references teach that the mold cavities of the first group 12, 14 (into which the first plastics component is injected) are arranged with respect to the axis A of the carrier arm 30 so as to be exclusively point-symmetric to the mold cavities of the second group 18, 16 (into which the second plastics component is injected). The term "exclusively point-symmetric" is defined in the specification on page 3, line 28 to page 4, line 4 and, effectively, excludes "mirror symmetry" between the first and second groups. All arrangements of the mold cavity groups shown in the cited references involve mirror-symmetry, which is in contrast to the exclusive point-symmetry

required by amended claim 1. As a result of requiring exclusive point-symmetry, the present invention provides an arrangement of a plurality of grouped mold cavities in a space saving way close to the center of rotation, so that the mold part in which the cavities are formed only has to have a relatively small radial extent. Further advantages are recited on page 2, second paragraph of the specification and include: a reduction in mass and a favorable mass distribution, close to the center, of the mold part; a simpler configuration of the heating conduit system; facilitating tool opening because the compact arrangement minimizes excessive leverages as a result of the mold inserts being close to the center.

In order for there to be obviousness-type double patenting, the claimed subject matter must not be patentably distinct. Stated otherwise, obviousness-type double patenting requires that the claims define an invention which is merely an obvious variation of an invention claimed in Boucherie ('139). This is not the case here. Claim 1, as amended, recites an invention which is neither disclosed nor suggested in Boucherie ('139) or in any of the cited secondary references. Accordingly, it is independently patentable and not subject to an obviousness-type double patenting rejection. For this reason, the rejections based upon obviousness-type double patenting should be reconsidered and withdrawn.

Claims 1-3 stand rejected under 35 USC 102 as being anticipated by Boucherie ('176) or Boucherie ('923). On the basis of the amendment herein to claim 1, to recite the requirement that the mold cavities of the first group are arranged with respect to the axis of the carrier arm so as to be exclusively point-symmetric to the mold cavities of the second group, a feature that is neither taught nor suggested in either of the cited references, a very important feature of the invention is not disclosed by the cited references. Accordingly, there is no basis for a rejection under 35 USC 102 based upon either cited reference. Moreover, in view of the unobvious results flowing from a tool exhibiting exclusive point-symmetry, the claimed tool would not have been obvious to the skilled worker at the time the invention was made based upon any disclosure in either of the cited references. For all of the reasons discussed in connection with the rejections based upon double patenting, the rejections under 35 USC 102 should be reconsidered and withdrawn.

The amendments to claim 1 have placed it and its dependent claims (claims 2-4) in

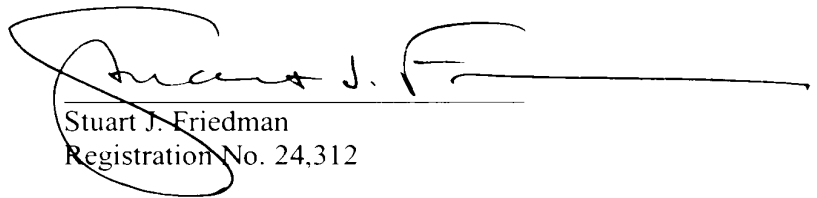
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condition for allowance. Accordingly, an early Notice of Allowance is courteously solicited.

Respectfully submitted,



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MARKED UP VERSION

1. (Amended) A tool of injection molding of toothbrush bodies of at least two different plastics components injection-molded in succession, said tool comprising two mold parts which can be moved relative to each other and together constitute at least two groups of parallel mold cavities, and further comprising a rotatable carrier arm mounted for rotation about an axis, with

- one of said mold parts comprising a recess for each group of mold cavities, a mold insert being insertable into said recess,

- partial cavities being formed in said mold inserts, which partial cavities each correspond to a head portion of said toothbrush bodies,

- a first one of said plastics components being injected into a first one of said groups of mold cavities, and

- a second one of said plastics components being injected into a second one of said groups of mold cavities;

wherein

- a) said mold cavities of said first and second groups are arranged on opposite sides of said rotatable carrier arm, said mold inserts being attached to said carrier arm;

- b) said mold cavities are arranged in each group parallel to each other and so as to have an identical orientation;

- c) said mold cavities of said first group are arranged so as to lie opposite to said mold cavities of said second group; and

- d) said mold cavities of said first group are arranged, with respect to the axis of said carrier arm so as to be exclusively point-symmetric to said mold cavities of said second group.